

**AMENDMENTS TO THE DRAWINGS:**

Applicants submit herewith twenty-seven sheets of replacement drawings prepared in view of the Notice of Draftspersons' Patent Drawing Review which accompanied the Office Action of November 27, 2000. These sheets, which include Figs. 1-32, replace the corresponding original sheet containing Figs. 1-32.

Attachment: Replacement Sheets (sheets 1-27).

**REMARKS**

Claims 11-15, 17-23, 36-39, 42-58, 60-65, 68-73, 83-90, 92, 93, 95-101, 103, and 106-133 are pending in this application. Claims 11-14, 36-39, 42-57, 62-65, 68-73, 83-90, 92, 93, 95, 96 and 114-133, have been allowed. Claims 19, 20, 60, 99, 100 and 108-110 have been objected to only as being dependent upon rejected base claims, and were otherwise deemed to be allowable. Claims 17, 18, 21 and 61 were objected to as being dependent upon rejected claims. Claims 15, 17, 18, 21-23, 58, 61, 97, 98, 101, 103, 106, 107 and 111-113 have been rejected. Claims 15, 36, 57, 58, 62, 87, 92, 95 and 97 are independent.

By this Amendment After Final Reject Applicants seek to revise claims 17, 21 and 61 to depend from pending claims (claim 18 depends from claim 17 and so need not be revised), and to restore claim 97 to its previous form. A set of replacement drawing sheets has been submitted herewith. Upon entry of this Amendment claims 15, 36, 57, 58, 62, 87, 92, 95 and 97 will remain independent.

The Examiner is thanked for the allowance of claims 11-14, 36-39, 42-57, 62-65, 68-73, 83-90, 92, 93, 95, 96 and 114-133. Those claims have been maintained unchanged, and so are believed to remain in condition for allowance at least for the reasons given previously.

The Examiner also is thanked for the indicated allowability, if suitably rewritten in independent form, of claims 19, 20, 60, 99, 100 and 108-110. Those claims have been maintained because, as explained below, claims 15, 58 and 97, from which they depend, are themselves believed to be allowable.

The Examiner is thanked for the telephonic interview conducted on August 17, 2006. During that telephonic interview the Examiner suggested claim 97 be restored to its

previous form to avoid the cited art, which has been done. In addition, the Examiner requested that formal drawings be submitted, and those drawings have been submitted herewith.

**The Objection  
to the Claims**

Claims 17, 18, 21 and 61 have been objected to as being dependent upon rejected base claims.

Claims 17, 21 and 61 have been revised to depend from pending claims 15 or 58 (claim 18 depends from claim 17 and so need not be revised). Accordingly, favorable reconsideration and withdrawal of this rejection are respectfully requested.

**The Rejection Under  
35 U.S.C. § 102**

Claims 15, 17, 18, 21-23, 58, 61, 97, 98, 101, 103, 106, 107 and 111-113 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,790,158 to Shinada et al. Applicants respectfully traverse this rejection and submit the following arguments in support thereof.

Applicants will first discuss the rejection of claims 15 and 58, and then the rejection of claim 97.

Claim 15 is directed to an ink cartridge for an ink jet printer. This cartridge has a housing with walls and an opening, the housing containing ink, a top wall of the housing being constituted by a lid covering the opening, at least one ink chamber defined by the housing and lid, an ink supply port formed on one of the housing's walls, and at least one recess forming a space in an outer surface of the lid when the ink cartridge is packed under a vacuum condition, the pressure within that space being lower than the atmospheric pressure when the ink cartridge

is packed. A seal member is adhered to the outer surface of the lid. The recess is exposed to the exterior of the ink cartridge when the seal member is adhered to the outer surface of the lid and the recess is partially covered by the seal member adhered to the lid's outer surface.

Applicant's invention, according to claim 58, involves an ink jet printer that includes a carriage, a print head with plural nozzles through which ink is ejected mounted on the carriage, an ink cartridge that is mounted on the carriage, the cartridge having a housing with walls and an opening, the housing's top wall being constituted by a lid covering the housing's opening, at least one ink chamber defined by the housing and lid, an ink supply port formed on one of the housing's walls, and at least one recess forming a space in an outer surface of the lid, the pressure within that space being lower than the atmospheric pressure when the ink cartridge is packed. A seal member is adhered to the lid's outer surface. The recess is exposed to the cartridge's exterior when the seal member is adhered to the outer surface of the lid, and the recess is partially covered by the seal member adhered to the lid's outer surface.

By way of non-limiting example, it may be helpful to consider the disclosure at pages 11-12 of the specification, and Figs. 7(a-c). As explained therein, an ink cartridge can be constructed with a recessed part 60 that is partially covered by a film 62 such that a portion 60a communicates with the atmosphere (recessed part 60 should not be confused with recessed part 58, which is completely sealed by film 62). As the specification explains, this construction helps to prevent the formation of bubbles in the cartridge's ink should the packaged ink cartridge be stored for a long period (any such bubbles could move to the recessed portion).

Fig. 18(a) of Shinada<sup>1</sup> shows the cartridge lid without a seal thereon. The dashed line is understood to represent the position of the seal 542 (the seal is depicted in Fig. 18(b)).

The Office Action contends Fig. 18(a) depicts a recess at elements 541, 541' and 542" - that, however, mischaracterizes Shinada. As explained at col. 15, lines 34-54, elements 541, 541' and 541" are air vent ports having the shapes of circuitous grooves (also referred to as communicating ports), not recesses.

Even assuming *arguendo* that the air vent ports correspond to the claimed recess, Shinada still does not suggest all the features of the claimed invention.

In particular, claims 15 and 58 provide that the recess is **exposed** to the cartridge's exterior when the seal is adhered to the lid's outer surface, and that the recess is **partially covered** by the seal member adhered to the lid's outer surface (as explained above, this is done for the purpose of bubble control). In contrast, in Shinada it is clear from Fig. 18(b) and col. 15, lines 43-55, that the air vent ports 541, 541' and 541" of Shinada's ink cartridge, when packed, are **fully covered** by a seal 542 having a neck portion 543 and tongue 545. One skilled in the art would therefore understand Shinada's circuitous air vent ports 541, 541' and 541" (1) are not recesses as claimed, and (2) are not partially covered by the seal member, as claimed.

As recited in claim 97, this invention also involves an ink cartridge for an ink jet printer that includes an ink cartridge main body having an ink chamber communicating with an

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<sup>1</sup> It should be noted that Shinada is commonly assigned along with the present application. To the extent this response discusses Shinada, such discussion involves the general teachings of that reference, and should not necessarily be construed to limit the scope of the claims of the reference or its counterparts. If Shinada is characterized as teaching a particular feature or mode of operation, the claims of that reference and its counterparts should not necessarily be construed to require that feature or mode of operation unless the feature or mode of operation is specifically recited in the claims. In this regard, it should be noted that the claims of a patent are not necessarily limited to embodiments disclosed, and that limitations in the specification are not necessarily to be imported into the claims. Also, an inventor need not foresee all uses for their invention.

ink supply port, and a lid covering an opening portion of the ink cartridge main body, and having an atmosphere communication port through which the ink chamber is communicable with atmospheric air. A narrow groove, sealed by a film to define a capillary, is formed on a surface of the lid, one end of the narrow groove communicating with the atmosphere communication port, and the other end of the narrow groove communicating with an opening to be open to the atmospheric air, this narrow groove occupying only a portion of the surface of the lid, the outer surface of the lid having a portion where the narrow groove is not formed. A recess for storing negative pressure under vacuum is formed on the portion of the lid's outer surface where the narrow groove is not formed. The recess does not communicate with the interior of the ink cartridge

Claim 97 specifies that the recess is formed on the portion of the outer surface of the lid where the narrow groove is not formed. Clearly, this avoids Shinada, which the Office Action contends has a recess 541, 541', 541", but which the recess is really a narrow circuitous groove. That is, claim 97 says the recess is formed where the narrow groove is not present; however, according to the Office Action, Shinada's recess is the narrow groove. Under the Office Action's interpretation of Shinada, the reference cannot anticipate claim 97 because the recess is not located in a position where a groove is not present.

Claim 97 also provides that the recess does not communicate with the ink cartridge's interior, which the Examiner, during the August 17 telephonic interview, stated would avoid Shinada.

For all the foregoing reasons, favorable reconsideration and withdrawal of this rejection are respectfully requested.

**CONCLUSION**

Applicants have made a diligent effort to place this application in condition for allowance and submit that the claims are in condition for allowance. If for any reason, however, the Examiner should deem that this application is not in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below to resolve any outstanding issues prior to issuing a further Office Action.

In view of the foregoing revisions and remarks, Applicants respectfully request entry of this Amendment After Final Rejection and submit that entry of this Amendment will place the present application in condition for allowance. It is further submitted that entry of this Amendment can be approved by the Examiner consistent with Patent and Trademark Office practice, since the changes it makes should not require a substantial amount of additional work by the Examiner. It is believed that the changes presented in this Amendment address matters that the Examiner has previously considered.

No fees are believed to be due in connection with the filing of this paper. Nevertheless, should the Commissioner deem any fees to be now or hereafter due, the Commissioner is authorized to charge all such fees to Deposit Account No. 19-4709.

Respectfully submitted,

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